

### 3.3 The Organization of living things

#### I. Different levels of organization in living things

#### II. The benefits of being multicellular

##### A. Multicellular - means you are made up of many cells

1. Multicellular organisms grow by making more cells, not by making cells bigger

##### B. Benefits of being multicellular

1. Larger size - multicellular organisms are larger than single celled organisms
2. Longer life - lifespan not limited to that of one cell
3. Specialization - each cell has a specialized job

#### III Cells working together

##### A. Tissue - a group of cells that work together to perform a specific job

##### 1. Four types of tissues in animals

- a. nerve tissue, muscle tissue, connective tissue, and protective tissue

##### 2. Three types of tissues in plants

- a. transport tissue, protective tissue, and ground tissue

Oct 24-1:55 PM

#### IV Tissues working together

##### A. Organ - a structure that is made up of two or more tissues working together to perform a specific function

1. Human organs - stomach, heart
2. Plant organs - stem, root

##### B. Organ working together

1. Organ system - a group of organs working together to perform a particular function
2. Example: digestive system - multiple organs working together

#### V Organisms

##### A. Organism - anything that can perform life processes

1. One celled organism = unicellular

Oct 25-1:43 PM

- VI** Structure and function
- A. In organisms structure + function are related
1. Structure - the arrangement of parts in an organism
  2. Function - the job the part does
    - a. Example : structure of lungs = large, spongy, sac
    - b. in lungs there are tiny air sacs called alveoli
    - c. function (of lungs) to bring oxygen to body and get rid of carbon dioxide ( $\text{CO}_2$ )

Oct 25-1:51 PM